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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,443	01/16/2002	Keith McQuilkin Murr	17731 (MHM 13353US01)	6492

7590 09/26/2002

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EXAMINER

GILMAN, ALEXANDER

ART UNIT PAPER NUMBER

2833

DATE MAILED: 09/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/050,443

Applicant(s)

MURR ET AL.

Examiner

Alexander Gilman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in–

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

1. Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen.

With regard to claims 1, Chen (US 6,402,561) discloses a connector assembly including:

a connector housing;

a chamber;

at least two signal contacts arranged as a differential pair

an impedance tuner block insertable into the chamber, said tuner block having at least two

channels and a plurality of isolation ribs

2. Claims 1 and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Fogg et al.

With regard to claim 1, Fogg et al (US 5,975,960) disclose a connector assembly including:

a connector housing (15);

a chamber (35);

at least two signal contacts (41, 42) arranged as a differential pair;

an impedance tuner block (20) insertable into the chamber, said tuner block having at least two

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channels (58) and a plurality of isolation layers.

With regard to claims 4-6, Fogg et al (US 5,975,960) disclose an impedance adjusting insert (30, 32) securable to the impedance tuner block adjacent to the corresponding differential pair.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Rothhermel et al.

Chen discloses an apparatus comprising
a housing (30)

a plurality of signal and ground contacts exposed from said cavity, said contacts being arranged in differential pairs

In the embodiment presented, Chen does not disclose ground contacts.

Rothhermel et al (US 6,384,341) discloses the ground contacts between the differential pairs of the signal contacts (Abstract, lines 10-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Chen connector with the ground contacts, as taught by Rothhermel et al, to optimize impedance characteristics.

2. Claims 3, 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fogg et al in view of Rothhermel et al.

With regard to claims 3, 11 and 14, Fogg et al disclose an apparatus comprising
a housing

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a plurality of signal contacts exposed from said cavity, said contacts being arranged in differential pairs impedance tuner (20) comprising a non-ferrous (brass –claim 18) insert oriented parallel to the signal contacts.

In the embodiment presented, Fogg et al does not disclose ground contacts.

Rothhermel et al (US 6,384,341) discloses the ground contacts between the differential pairs of the signal contacts (Abstract, lines 10-13).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Chen connector with the ground contacts, as taught by Rothhermel et al, to optimize impedance characteristics.

With regard to claims 12-14, Fogg et al when modified by Rothhermel et al disclose a plurality of dielectric isolation ribs (formed in the tuner body by the specified configuration of the channels).

With regard to claims 15-17, Fogg et al when modified by Rothhermel et al disclos all of the limitations as applied to claims 11-14 above.

3. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Rothhermel et al and further in view of Arnett et al.

Chen when modified by Rothhermel et al discloses all of the limitations except for a metal insert

Arnett et al (US 6,176,742) disclose the metal insert overlapping a portion of the signal contacts

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to provide Chen connector with the metal insert overlapping a portion of the signal contacts

(by inserting the insert in the part 20), as taught by Arnett et al to improve capacitive crosstalk compensation.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gilman whose telephone number is (703) 305-0847. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where

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this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

Alexander Gilman

A handwritten signature in black ink that reads "Alex Gilman". The signature is written in a cursive, flowing style.

September 25, 2002